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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,471	07/29/2003	Ikutaroh Nagatsuka	116705	4700
25944	7590	03/08/2005	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			HUFFMAN, JULIAN D	
			ART UNIT	PAPER NUMBER
			2853	

DATE MAILED: 03/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

10/628,471

Applicant(s)

NAGATSUKA ET AL.

Examiner

Julian D. Huffman

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-12, 14-18, 20 and 21 is/are rejected.
- 7) ☒ Claim(s) 9, 13 and 19 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/29/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 10 and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 10, the last two lines which recite "in relation to the identification codes by the control section" are not clear in the context of the claim.

Claim Objections

3. Claims 1-15 and 18 are objected to because of the following informalities:

In claim 1, the limitation "the detection section's detection result" lacks antecedent basis. The claim never recites that the detection section detects the test image, rather it is for or capable of detecting the test image.

Numerous other similar errors exist in these claims.

Claims 4 and 8 are unclear. It is suggested that applicant claim that the control section controls the recording section to record a test image under an image recording condition, detect the result of the test image and set the image recording condition for a subsequent test image based on the detected results.

In claim 6, the phrase "the predetermined image" lacks antecedent basis.

Claim 9 does not set forth any additional structure since it recites a method of operating the device with no regard to the structure which performs the operation.

In claim 18, it is suggested that the word "subsequently" be inserted before the phrase "recording the test image"

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 6, 8, 12, 14-18, 20 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Miyoshi et al. (U.S. 6,489,983 B2).

With regards to claim 1, Miyoshi et al. discloses an image forming device comprising:

a recording section for recording an image on a rewritable image recording medium (10);

a control section (51) for controlling the recording section so that a test image for testing the image recording medium is recorded on the image recording medium

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(column 4, line 62-column 5, line 2, processor is programmed to detect/test the image as it is printed, thus the image is a test image, and adjust the feeding speed which affects the color density);

a detection section for detecting the test image recorded on the image recording medium (18); and

a determination section for determining whether the detection section's detection result is within an allowable range or not (controller adjust the color tone to a predetermined value).

With regards to claim 6, since the predetermined image and the test image are the same, they are recorded simultaneously.

With regards to claim 8, since the feeding speed is changed as recording is conducted, the images are recorded simultaneously under a plurality of different image recording conditions.

With regards to claim 12, the limitations of the image recording medium do not further limit the image recording device. Firstly, the image recording medium is not a part of the image recording device and does not further limit the device claim (see MPEP 2115). Secondly, the image recording medium is never claimed, rather, claim 1 merely recites that the recording section is for recording an image on a rewritable image recording system.

With regards to claim 14, the detection section detects display densities of the test image (column 5, line 2).

With regards to claim 15, the limitations of the image recording medium do not further limit the device.

With regards to claim 16, Miyoshi et al. discloses an image forming method comprising:

recording a test image for testing a rewritable image recording medium on the rewritable image recording medium based on predetermined image recording conditions (column 4, line 62-column 5, line 2, processor detects the test image as it is printed, thus the image is a test image, and adjust the feeding speed which affects the color density);

detecting image-characteristic values of the test image recorded on the image recording medium (column 4, line 62-column 5, line 2); and

determining whether the detected image-characteristic values are within an allowable range or not (controller adjust the color tone to a predetermined value).

With regards to claim 17, Miyoshi et al. prints a predetermined image on the recording medium when it is determined that the detection result is within an allowable range.

With regards to claim 18, Miyoshi et al. detects the image during recording and adjust the values to allowable values.

With regards to claim 20, the steps are repeated until the image is completed.

With regards to claim 21, the processor stores the results of the sensor and the print settings and adjusts the predetermined image recording conditions based on the image recording conditions and the image-characteristic values.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-5, 10, 11, 12, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takada et al. (U.S. 5,596,353) in view of Bowers et al. (U.S. 5,369,476).

With regards to claim 1, Takada et al. discloses an image forming device comprising:

a recording section for recording an image on a rewritable image recording medium (fig. 2a, recording heads are capable of forming image on rewritable recording medium);

a control section (fig. 1, 1101) for controlling the recording section so that a test image for testing the image recording medium is recorded on an image recording medium (fig. 30);

a detection section for detecting the test image recorded on the image recording medium (1014); and

a determination section for determining whether the detection section's detection result is within an allowable range or not (1020).

With regards to claim 2, Takada et al. discloses that the control section controls the recording section so that before a predetermined image to be recorded on an image

recording medium is recorded on the image recording medium, the test image is recorded on an image recording medium, and when the detection result is outside the allowable range, image recording conditions for recording the predetermined image on the image recording medium are set based on the detection result (column 2, lines 57-62).

With regards to claim 3, the control section discharges the image recording medium to a discharging tray for defective media (column 10, lines 35-40), when the detection result in the detection section is outside the allowable range even after the image recording conditions have been changed more than once and the test image is recorded and detected (column 2, lines 53-62, the testing is conducted periodically and therefore the test image is formed more than once to correct density differences).

With regards to claim 4, the controller controls the recording section so that test images are simultaneously recorded on the image recording medium under a plurality of differing image recording conditions (fig. 30).

With regards to claim 5, the predetermined image is recorded on the image recording medium, based on the image recording conditions set by the control section, when the detection result is within the allowable range (after performing uneven density correction, a predetermined image is printed on the recording medium based on the image recording conditions determined in the uneven density correction).

Takada et al. does not disclose the test images and the predetermined image being formed on the same recording media. In Takada et al. a test image is formed on

the media, it is discharged after being read, and then the predetermined image is recorded on the medium.

Bowers et al. discloses printing test images on the margin of a recording media to be read by a sensor for detecting and correcting optical density (figs. 3 and 4) of a predetermined image to be subsequently printed on the media.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Takada et al. to print the test image and the predetermined image on the same sheet of media, as taught by Bowers et al. The reason for doing such would have been to reduce waste of print media.

8. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miyoshi et al. in view of Takada et al.

Miyoshi et al. performs the sensing operation each time a sheet is printed.

Miyoshi et al. discloses everything claimed with the exception of a discharge tray.

Takada et al. discloses a discharge tray (43).

It would have been obvious to one having ordinary skill in the art at the time of the invention to incorporate the discharge tray of Takada et al. in the printer of Miyoshi et al. The reason for doing such would have been to prevent completed prints from being damaged after printing.

Allowable Subject Matter

9. Claims 9, 13 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten to overcome the objections outlined above in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian D. Huffman whose telephone number is (571) 272-2147. The examiner can normally be reached on 9:30a.m.-6:00p.m. Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JH



**Stephen D. Meier
Primary Examiner**